was ninth Wrangler in 1881, and D.Sc. of London in the same year. He became a fellow of Emmanuel in 1883. He began his fellowship by installing electric light in the hall and chapel for the tercentenary of the college in the following year, and thus anticipated by a few weeks the installation which Lord Kelvin introduced into Peterhouse. He was first with Siemens Brothers, and was resident electrician for the Portrush and Bushmills Railway and the Bessbrook and Newry Railway. He afterwards joined the firm of Mather and Platt when they began electrical work, and ultimately became vice-chairman of the company. He carried out the scheme for the City and South London Railway, and while engaged upon industrial work of that kind he joined his brother John in a paper on dynamo-electric machines in the Transactions of the Royal Society, a paper which speedily became classical. Thereafter he was engaged in electrical and engineering work which brought him into contact with all the active electrical and engineering experts of the country. During the war he was engaged in India on the Indian Industrial Commission. He was president of the Institution of Mechanical Engineers in 1919, but not well enough to deliver the presidential address which he wrote for that body.

Electricity and machinery were not Dr. Hopkinson's only interest; like other members of his family, he was deeply and sanely interested in social questions, and his latest writings are to be found in letters to the *Times* and *Morning Post* on financial matters. Like all the rest of his family, too, he was a keen Alpine climber and member of the Alpine Club, and, like so many climbers, was a remarkably genial host and an ever-welcome guest. He lived in an atmosphere of business, science, and common sense, to which access was easy on account of his family associations; but he contributed his own full share to its maintenance, and the loss of his knowledge and experience is a grave misfortune. He and his brother Charles married sisters, the daughters of John Campbell, of Whiteabbey, near Belfast. His wife survives him. They have one son, formerly an officer in the Army, who is now devoted to anthropology at Cambridge, and a daughter.

NAPIER SHAW.

SIR WILLIAM MATTHEWS, K.C.M.G.

THE civil engineering profession has lost an eminent personality by the decease of Sir William Matthews, who died on January 8 at the age of seventy-eight. From the obscurity of a little Cornish town he rose in the practice of his profession to become the trusted consultant of Government authorities on the most important harbour undertakings in the Empire. His name will long be associated with the annals of harbour construction, and substantial breakwaters in various parts of the world remain as a testimony to his engineering skill. The firm of Coode, Matthews, Fitzmaurice, and Wilson, of which he was until lately the senior surviving partner, have acted as technical advisers to the Admiralty, the Board of Trade, and the Crown agents to the Colonies. At home they were chief engineers for the National Harbour at Dover; abroad they have been consulting engineers for similar undertakings at Gibraltar, Malta, Cyprus, Colombo, Singapore, and Hong-Kong. They are also consultants to several Colonial Governments, the Mersey Conservancy, the Humber Conservancy, and the Tyne Commissioners.

Sir William Matthews was a native of Penzance, where he was born in March, 1844. He served part of his apprenticeship in an engineering works at Hayle, a few miles away. Afterwards he entered the office of his father, who practised as a civil engineer in Penzance. There in 1864 he came under the notice of the late Sir John Coode, who had been called in to advise the Corporation of Penzance. The young assistant was employed to make a survey of the harbour, and acquitted himself so creditably that Sir John took him into his office in London, and ultimately in 1892 into partnership.

The value of Sir William Matthews's services to the Government gained him the C.M.G. in 1901, and the K.C.M.G. in 1906. In 1907 he was elected president of the Institution of Civil Engineers. He became a member of the International Commission on the Suez Canal in 1908, and during the later portion of his career served on a number of committees of public and scientific utility.

COL. CHARLES EDWARD CASSAL, who died on December 22 last, in his sixty-fourth year, was public analyst for the Metropolitan Borough of Battersea, the Royal Borough of Kensington, the Parts of Holland and Kesteven (Lincs), and Chipping Wycombe (Bucks), and joint public analyst for the City of Westminster. He was educated at University College School, and received his professional training at University College, London, where he was demonstrator in the department of hygiene and public health from 1879 to 1888. He was a fluent and forcible speaker, and, having qualified, by examination, for the fellowship of the Institute of Chemistry, he took a prominent part in the discussions relating to the interests of his profession, particularly those of public analysts and official agricultural analysts. Col. Cassal served on the council for six periods of three years each, and as a censor for one year. He frequently accompanied deputations from the institute to Government departments. For fifteen years he was editor of the *British Food Journal*, to which, as well as to other journals, he contributed many articles on the chemistry of food and drugs, on water supplies, and on sewage treatment and disposal.

WE regret to have to record the death of MR. B. P. LASCELLES, who was a science master at Harrow from 1885 to 1901. His great success as a teacher rested on his unbounded interest in everything which appealed to him. It was not enough for him to know about dyes; he made them and coloured his own ties to his fancy! That was in the early days of the synthetic industry. Such

© 1922 Nature Publishing Group

interest is contagious, and so he firmly established the Harrow Scientific Society, as he had helped to found the Junior Scientific Society at Oxford. Though a chemist by training—he was a fellow of the Chemical Society—his activities were at least as wide as those of the British Association, of which he was a keen supporter. His knowledge of palæontology and of archæology was deep. Few indeed were the branches of learning along which he could not guide a young inquirer, so he fulfilled perfectly the offices of librarian and curator of the school museum. The municipal life of his adopted town and county owe much to Mr. Lascelles, whose many friends will ever remember his genial personality with gratitude.

Prof. W. Foord-Kelcey, professor of mathematics at the Royal Military Academy, Woolwich, since 1903, died on January 3 at the age of sixty-seven. He was a scholar of Exeter College, Oxford, and obtained a First Class in the Final Mathematical School in 1877. He joined the Royal Military Academy as instructor in mathematics in 1878; later he was called to the Bar, and for a time combined legal work with teaching, but eventually gave up the former. Altogether, Prof. Foord-Kelcey was at the Academy for forty-three and a half years, and nearly all serving gunner and sapper officers knew him. He was a man of great ability with brain, hand, and eye, being a first-rate practical mechanic. He had a wide knowledge of mechanism, and retained his interest in the teaching of mechanics to the last. He was due to retire in the summer of this year, and in him the Royal Military Academy has lost a great personality.

Father Giuseppe Lais, S.J., whose death in Rome was recently announced, was born in Rome in 1845. He was the author of a very long series of papers dealing with meteorology, both mediæval and modern, solar eclipses, comets and meteors, and astronomical photography. He published some little-known meteorological records of the sixteenth and seventeenth centuries. He took a deep interest in the astrographic chart, and published researches on the best methods of measuring and developing the plates. As vice-director of the Vatican Observatory since 1903 he has had a large share in taking the plates of the zone allotted to that observatory. He was also interested in the question of calendar reform, publishing papers on this subject in 1892 and 1901. Father Lais was for many years vice-secretary of the Accademia dei Nuovi Lincei, Rome.

We regret to announce the death on January 15, in his ninetieth year, of Sir John Kirk, G.C.M.G., K.C.B., F.R.S., chief officer and naturalist of Livingstone's expedition to the Zambezi in 1858–63, during which he made large collections and many observations of great scientific value. He was the author of numerous contributions to the botany, zoology, and geography of Eastern tropical Africa.

We regret to see the announcement of the death on January 8, at eighty-six years of age, of Prof. J. H. Cotterill, F.R.S., formerly professor of applied mechanics, Royal Naval College, Greenwich.

Notes.

The gold medal of the Royal Astronomical Society has been awarded to Dr. J. H. Jeans for his contributions to theories of cosmogony.

M. Raymond Poincaré, who has succeeded M. Briand as Prime Minister of France, held that office in the years 1911–13, and was President of the French Republic in 1913–20. He is a brother of M. Lucien Poincaré, the distinguished official head of the University of Paris, who died nearly two years ago, and a cousin of the great mathematician and philosopher, Prof. Henri Poincaré, who died in 1912. In 1914 M. Poincaré was elected Lord Rector of the University of Glasgow, and in November, 1919, he delivered an inspiring address on Franco-Scottish unity to an assembly of four thousand students and other members and friends of the University.

The Strangers' Hall, Norwich, an interesting old city merchant's house, with groined undercroft, fifteenth-century banqueting hall, and other panelled rooms of later date, has been offered by its owner, Mr. Leonard G. Bolingbroke, to the Corporation of Norwich for the purpose of an English Folk and Historical Museum, in conjunction with the Norwich Castle Museum. Mr. Bolingbroke has also offered his collection of old domestic appliances and other "bygones" illustrative of the various phases of a middle-class Englishman's home during the last four or five centuries, which will find a fitting environment in the various rooms of the house. While the aim of the museum will be historical rather than scientific, there will be found many exhibits of interest to students of the early history and development of such subjects as the production of light and fire, domestic cookery, and other kindred objects.

The annual meeting of the Institute of Metals will be held in London on March 8–9, when ten important papers are to be presented for discussion. The annual May lecture will be delivered on May 3 by Sir Ernest Rutherford on "The Relation of the Elements." The autumn meeting will be held at Swansea on September 20–22. A large gathering is expected in this important metallurgical centre, and the Mayor and corporation have extended a very hearty invitation to members of the institute. Last year the membership of the institute increased from 1298 to 1410—a record year's growth. Such an increase, occuring during a year of great trade depression, indicates that makers and users of non-ferrous metals and alloys are on the alert to take advantage of the

© 1922 Nature Publishing Group